

*THE LIVES OF BRITISH BIRDS.*¹

THE third and fourth sections of this pleasant work on popular British ornithology comprise the dipper, the thrush family, the warblers, the hedge sparrow, the starlings, the golden oriole, and the wax-wing. The work is professedly and necessarily very largely a compilation, and a vast amount of most interesting and valuable information has been gathered together from widely scattered and often very inaccessible sources. This is carried out in a manner deserving all praise, the more so that a reference is always given to the publication from which the information is gleaned. Nevertheless, we sometimes miss, in the accounts of some of our more familiar species, the charm often found in a first-hand narration, and in the case of some of the articles, *e.g.* that on the dipper, we do not find impressed upon

a good many field naturalists whose acquaintance with the species in question has been of some duration. What is alluded to here as the lesser whitethroat's "loud rattling call" is usually regarded as the final portion of the bird's song, analogous to the bright, clear, piping notes with which the blackcap—though not invariably—concludes its strain.

In the excellent article on the marsh warblers—full of most interesting and valuable information—the author shows that he is remarkably at home with the subjects of his essay.

Many people must have noticed the habit the robins have in winter of keeping closely to one part of the garden, homestead, fields, or woodland, where they mean to live through the cold weather. Mr. Kirkman has gone into this matter closely, and gives in section iii. an interesting account of the result of his in-



Photo.]

FIG. 1.—Dipper's nest on a trunk projecting from the water. From "The British Bird Book." [Riley Fortune.

them, or expressed by them, as much evidence of a personal acquaintance with the subject thereof as we might perhaps expect from those who undertook to write such accounts of well-known British species.

Again, one author writes, "I have not heard the song of the black redstart." This is a pity, because he has to fall back upon Naumann, who must surely have been prejudiced against the bird; and consequently no justice has been done to one of the most charming of bird songs.

In the article on the whitethroats, blackcap, and garden warbler, the author writes: "Difficult as it may be to distinguish between the songs of these four warblers. . . ." This implied statement will surprise

investigations. He writes: "The robin, unlike any other British winter species that I know of, is found from about the end of August to the middle of February in solitary possession of a more or less well-defined feeding area, from which all others of his own species are excluded. Pressure of cold weather may sometimes force him to associate with his fellows in order to share the crumbs put out by the charitable, but he can hardly be said to suffer them gladly. He is happy only when alone. Hence the old saying, that 'one bush will not harbour two robins.'" From August to March he kept the robins about a farm under observation, and he was able at last to map out their adjoining estates—a plan of which is given. The boundaries of these estates, it is seen, are nearly everywhere imaginary lines, and they overlap, but every robin clearly recognised to within a

¹ "The British Bird Book." Edited by F. B. Kirkman. Section iii., pp. 297-449; Section iv., pp. 169. (London and Edinburgh: T. C. and E. C. Jack, n.d.) Price 10s. 6d. net each part.

yard or two the position of his boundary, and made the fact quite clear to any other robin who did not. Moreover, the author found that it was not easy to drive them out of their own little estate, to which they invariably returned immediately.

The intention of making life habits the chief feature in the work is fully carried out in the last two sections. A notice inserted in the last part informs readers that in order to render the notes on Distribution more complete, the range of each species outside its breeding area will be briefly indicated.

Mr. A. W. Seaby's pictures are as charming,



Photo] [W. Farren.
FIG. 2.—Reed-warbler feeding its young. From "The British Bird Book."

spirited, and lifelike as ever—quite the most original and refreshing bird pictures we have seen for long—and there are excellent plates of the rosy pastor, golden oriole, and waxwing by some of the other artists who contribute to the work.

A MONUMENT TO JANSSEN.

AN influential committee has been formed to raise to the memory of Janssen a durable monument which shall recall to the minds of those who see it the enormous and brilliant services rendered to astronomy by the great French *savant*.

A man of rare breadth of mind, it was not simply to any one branch of the oldest science that Janssen turned his attention, but he will be remembered chiefly for his fruitful researches in astronomical physics. That brilliant discovery, shared by Lockyer, in 1868, will probably be the *lucida* of his labours, the method of observing solar prominences, of drawing and measuring those enormous solar flames, without waiting for the rare and uncertain seconds of a total solar

eclipse. Only those whose work it is to observe and to study solar phenomena know how much of our present knowledge is due to the timely discovery of this method. By this have the labours of the discoverers, of Respighi, of Young, of Tacchini, Ricco, Hale, and Deslandres, and of many others become productive. Janssen from India and Lockyer from West Hampstead sent messages to the French Academy which arrived almost simultaneously, and immediately a new era in the rapidly expanding knowledge of the sun's physical and chemical attributes was opened.

Janssen also studied with great assiduity and marvellous results the laws of the absorption and transmission of light travelling through gaseous media, and thereby laid foundations on which have since been erected wonderful superstructures. As an organiser he was in the forefront. His photographs of the solar surface were magnificent and have never been excelled. It is to Janssen that we owe the establishment of the solar observatory on Mont Blanc, whither, in spite of his lameness, he made many ascents.

All this will count as an imperishable monument to those who know aught of astronomical physics. We heartily sympathise with the aims of the committee which has charged itself with receiving subscriptions to this end, and below give the names of those who have already joined:—MM. Armand Gautier, président de l'Académie des Sciences; G. Lippmann, vice-président; G. Darboux, secrétaire perpétuel; Ph. Van Tieghem, secrétaire perpétuel; C. Wolf, doyen de la Section d'Astronomie; Henri Poincaré, de l'Académie Française; G. Bigourdan, de l'Institut; J. Violle, de l'Institut; B. Baillaud, directeur de l'Observatoire de Paris; Prof. Chauveau, de l'Institut; De Selves, préfet de la Seine; Daumet, de l'Institut; Edmond Perrier, directeur du Muséum; Prof. Bouchard, de l'Institut; Alfred Grandidier, de l'Institut; Prof. Lannelongue, Sénateur; Dr. Roux, directeur de l'Institut Pasteur; R. Radeau, de l'Institut; G. Lemoine, de l'Institut; H. Deslandres, directeur de l'Observatoire de Meudon; M. Hamy, de l'Institut; P. Puiseux, astronome à l'Observatoire de Paris.

PIERRE EMILE LEVASSEUR.

BY the death of Pierre Emile Levasseur both geography and economic science in France have sustained a severe loss. Born on December 8, 1828, Prof. Levasseur devoted his energies during a long life to demonstrating the importance of a right appreciation of geography in its application to man and of economic science. As early as 1863 he published a "Précis d'Histoire de France" and a "Précis de Géographie," and throughout many years of active work in economic geography he always aimed at the highest precision in his studies with the view of building up a truly scientific type of geography and insisting upon the educational value of the subject when so treated. He especially directed his efforts towards a thorough understanding of the economic geography of France, but he also travelled widely in order to study economic conditions occurring in other lands; a journey to the United States in 1853 resulted in an important work, "L'Ouvrier Américain," and the same line of investigation, followed up both historically and economically, produced important studies on the working classes in France up to the time of the Revolution, and a later work dealt with their